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EXAMINER				
BUCKINGHAM, KELLYE DEE				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/725,665

**Applicant(s)**

TANG ET AL.

**Examiner**

KELLYE BUCKINGHAM

**Art Unit**

2165

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 December 2003.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-40 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-40 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 03 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-850)  
Paper No(s)/Mail Date 9/06/05, 07/03/06 and 04/06/07  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Inventor's Patent Application  
6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. As required by **M.P.E.P. 609(C)**, the applicant's submissions of the Information Disclosure Statements dated September 6, 2005, July 3, 2006 and April 6, 2007 are acknowledged by the examiner and the cited references have been considered in the examination of the claims now pending. As required by **M.P.E.P 609 C(2)**, a copy of the PTOL-1449 initialed and dated by the examiner is attached to the instant office action.

### ***Oath/Declaration***

2. The applicant's oath/declaration has been reviewed by the examiner and is found to conform to the requirements prescribed in **37 C.F.R. 1.63**.

### ***Drawings***

3. The applicant's drawings submitted are acceptable for examination purposes.

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 38-40 recites "the method of claim 37". There is insufficient antecedent basis for this limitation in the claims.

***Claim Rejections - 35 USC § 101***

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. Claims 17-37 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

**Regarding claim 17,** this claim recites ‘ system for enabling a user to extract from business data’, which contains various components and elements that would be reasonably understood by one of ordinary skill in the art to mean software. There is no definitive hardware of physical components associated in the claims or in the specification (page 8, lines 26-30 and page 9, lines 1-9).

This claim lacks the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 USC 101. They are clearly not a series of steps or acts to be a process nor are they a combination of chemical compounds to be a composition of matter. As such, they fail to fall within a statutory category. They are, at best, functional descriptive material *per se*.

Descriptive material can be characterized as either “functional descriptive material” or “nonfunctional descriptive material.” Both types of “descriptive material” are nonstatutory when claimed as descriptive material *per se*, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive

material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994)

Merely claiming nonfunctional descriptive material, i.e., abstract ideas, stored on a computer-readable medium, in a computer, or on an electromagnetic carrier signal, does not make it statutory. See *Diehr*, 450 U.S. at 185-86, 209 USPQ at 8 (noting that the claims for an algorithm in *Benson* were unpatentable as abstract ideas because “[t]he sole practical application of the algorithm was in connection with the programming of a general purpose computer.”).

Claims 18-35, fully incorporating the deficiencies of independent claim 16, are likewise rejected.

Regarding claim 36, this claim recites ‘ system for enabling a user to extract from business data’, which contains various components and elements that would be reasonably understood by one of ordinary skill in the art to mean software. There is no definitive hardware of physical components associated in the claims or in the specification (page 8, lines 26-30 and page 9, lines 1-9).

This claim lacks the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 USC 101. They are clearly not a series of steps or acts to be a process nor are they a combination of chemical compounds to be a composition of matter. As such, they fail to fall within a statutory category. They are, at best, functional descriptive material *per se*.

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Merely claiming nonfunctional descriptive material, i.e., abstract ideas, stored on a computer-readable medium, in a computer, or on an electromagnetic carrier signal, does not make it statutory. See *Diehr*, 450 U.S. at 185-86, 209 USPQ at 8 (noting that the claims for an algorithm in *Benson* were unpatentable as abstract ideas because "[t]he sole practical application of the algorithm was in connection with the programming of a general purpose computer.").

Regarding claim 37, this claim recites 'programming model 'and examiner interprets this language as software *per se*.

Claims 38-40, fully incorporating the deficiencies of independent claim 37, are likewise rejected.

### ***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 1-4, 6, 8, 10, 13-23, 25, 28-29, 31, 35-40 are rejected under 35 U.S.C. 102(e) as being anticipated by Williamson et al. US Patent 6,704,744.

**Regarding claim 1**, Williamson et al. teach a computer-implemented method for enabling a user to extract information from business data, comprising:

automatically identifying a data navigation path from a collection of relationships between individual sets of data comprised within the business data (col. 3, lines 60-67 and col. 4, lines 1-5, relationships mapping between two or more entities); and

providing the data navigation path to the user so as to enable the user to move from a first data set to a related second data set (col. 4, lines 6-53, disclosing paths between more than one tables and their relationships).

**Regarding claim 2**, Williamson et al. teach the method of claim 1, wherein the method further comprises receiving from the user a data context related to the first set of data (Fig. 4, Employee table will be considered the first set of data)

**Regarding claim 3**, Williamson et al. teach the method of claim 2, wherein the receiving from the user step is the first step (Refer to Fig. 3, to design a DBMS).

**Regarding claim 4**, Williamson et al. teach the method of claim 2, wherein automatically identifying a data navigation path further comprises:

providing the data context to a provider that is associated with a first type of data navigation (col. 4, lines 6-53, disclosing paths between more than one tables and their relationships);

receiving from the provider a link representing a data navigation path that is of the first type of data navigation (Refer to Fig. 7, where relationship comes from at least two entities in a model and the object within the model whereas the relationship includes a mapping or link between the two tables); and

wherein providing the data navigation path to the user comprises providing said link to the user (col. 10, lines 19-39, the join between two or more tables).

**Regarding claim 6.** Williamson et al teach the method of claim 2, wherein providing the data context to a provider comprises providing the data context to a provider that is associated with navigation from aggregated data to related transaction data (col. 3, lines 60-67 and col. 4, lines 1-5, relationships mapping between two or more entities).

**Regarding claim 8.** Williamson et al. teach the method of claim 2, wherein providing the data context to a provider comprises providing the data context to a provider that is associated with navigation from transaction data to related aggregated data (col. 3, lines 60-67 and col. 4, lines 1-5, relationships mapping between two or more entities).

**Regarding claim 10.** Williamson et al. teach the method of claim 2, wherein providing the data context to a provider comprises providing the data context to a provider that is associated with navigation between two data units that share a



dimension (Refer to Fig. 7, where relationship comes from at least two entities in a model and the object within the model whereas the relationship includes a mapping or link between the two tables).

**Regarding claim 13,** Williamson et al. teach the method of claim 2, wherein providing the data context to a provider comprises providing the data context to a provider that is associated with a logic association type of navigation (col. 3, lines 60-67 and col. 4, lines 1-5, relationships mapping between two or more entities).

**Regarding claim 14,** Williamson et al. teach the method of claim 2, wherein providing the data context to a provider comprises providing the data context to a provider that is associated with navigation between two data collections that the user has identified as related (Refer to Fig. 7, where relationship comes from at least two entities in a model and the object within the model whereas the relationship includes a mapping or link between the two tables).

**Regarding claim 15,** Williamson et al. teach the method of claim 1, wherein providing the data navigation path to the user comprises providing a traversable data navigation link to the user (col. 11, lines 4-35, traversal path)

**Regarding claim 16,** Williamson et al. teach the method of claim 2, wherein providing the data navigation path to the user comprises providing the user with a collection of data navigation links that each represent a data navigation path that is available based on the received data context (Refer to Fig. 7, where relationship comes from at least two entities in a model and the object within the model whereas the relationship includes a mapping or link between the two tables), wherein one of the data

navigation links corresponds to the provided data navigation path (col. 4, lines 6-53, disclosing paths between more than one tables and their relationships).

**Regarding claim 17,** Williamson et al. teach a system for enabling a user to extract information from business data, the system comprising:

a plurality of data navigation providers each associated with a specific type of navigation (col. 3, lines 60-67 and col. 4, lines 1-5, relationships mapping between two or more entities);

a navigation service layer configured to transmit a navigation service request to one or more of the data navigation providers (col. 4, lines 6-53, disclosing paths between more than one tables and their relationships); and

a metadata service for providing the plurality of data navigation providers with access to a metadata store, each data navigation provider being configured to respond to a received data navigation request by interacting with the metadata service to identify at least one data navigation path (Refer to Fig. 7, where relationship comes from at least two entities in a model and the object within the model whereas the relationship includes a mapping or link between the two tables).

**Regarding claim 18,** Williamson et al. teach the system of claim 17, wherein said at least one data navigation path corresponds to the received data navigation request (col. 3, lines 60-67 and col. 4, lines 1-5, relationships mapping between two or more entities).

**Regarding claim 19,** Williamson et al. teach the system of claim 17, wherein said at least one data navigation path corresponds to a data context provided with the

received data navigation request (col. 3, lines 60-67 and col. 4, lines 1-5, relationships mapping between two or more entities).

**Regarding claim 20,** Williamson et al. teach the system of claim 17, wherein each data navigation provider is further configured to respond to provide the navigation service layer with one or more navigation links that correspond to said at least one data navigation path (Refer to Fig. 7, where relationship comes from at least two entities in a model and the object within the model whereas the relationship includes a mapping or link between the two tables).

**Regarding claim 21,** Williamson et al. teach the system of claim 20, wherein the navigation service layer is further configured to provide the user with an aggregated collection of navigation links that represent navigation links collected from multiple data navigation providers (col. 3, lines 60-67 and col. 4, lines 1-5, relationships mapping between two or more entities).

**Regarding claim 22,** Williamson et al. teach the system of claim 21, wherein the navigation service layer is further configured to receive a selection command from the user, the selection command corresponding to a selected navigation link (Refer to Fig. 7, where relationship comes from at least two entities in a model and the object within the model whereas the relationship includes a mapping or link between the two tables).

**Regarding claim 23,** Williamson et al. teach the system of claim 22, wherein the navigation service layer is further configured to transmit the selection command to a corresponding one of the data navigation providers (col. 4, lines 6-53, disclosing paths between more than one tables and their relationships).

**Regarding claim 25**, Williamson et al. teach the system of claim 24, wherein the data retrieved from the data collection represents a traversal of the selected navigation link and is returned to the user through the navigation service layer (col. 11, lines 4-35, traversal path).

**Regarding claim 28**, Williamson et al. teach the system of claim 17, wherein at least one of the plurality of data navigation providers is associated with navigation from aggregated data to related transaction data (col. 3, lines 60-67 and col. 4, lines 1-5, relationships mapping between two or more entities).

**Regarding claim 29**, Williamson et al. teach the system of claim 17, wherein at least one of the plurality of data navigation providers is associated with navigation from transaction data to related aggregated data (col. 3, lines 60-67 and col. 4, lines 1-5, relationships mapping between two or more entities).

**Regarding claim 31**, Williamson et al. teach the system of claim 17, wherein at least one of the plurality of data navigation providers is associated with navigation between two data units that share a dimension (Refer to Fig. 7, where relationship comes from at least two entities in a model and the object within the model whereas the relationship includes a mapping or link between the two tables).

**Regarding claim 34**, Williamson et al. teach the system of claim 17, wherein at least one of the plurality of data navigation providers is associated with navigation between two data collections that the user has identified as related (Refer to Fig. 7, where relationship comes from at least two entities in a model and the object within the model whereas the relationship includes a mapping or link between the two tables).

**Regarding claim 35**, Williamson et al. teach the system of claim 17, wherein the navigation service layer is further configured to support at least one successfully registered additional data navigation provider (col. 4, lines 6-53, disclosing paths between more than one tables and their relationships); wherein the successfully registered additional data navigation provider becomes one of the plurality of data navigation providers (col. 4, lines 6-53, disclosing paths between more than one tables and their relationships).

**Regarding claim 36**, Williamson et al. teach a system for enabling a user to extract information from business data, the system comprising:

a plurality of data navigation providers each associated with a specific type of navigation (col. 3, lines 60-67 and col. 4, lines 1-5, relationships mapping between two or more entities);

a metadata service for providing the plurality of data navigation providers with access to a metadata store so that the data navigation providers are able to generate data navigation links based on information in the metadata store (Refer to Fig. 7, where relationship comes from at least two entities in a model and the object within the model whereas the relationship includes a mapping or link between the two tables);

a navigation service layer configured to transmit a navigation service request to one or more of the data navigation providers (col. 4, lines 6-53, disclosing paths between more than one tables and their relationships); to receive data navigation links from the plurality of data navigation providers, to present data navigation links to the user for selection, to receive a user selection of a data navigation link, and to transmit

the user selection to one or more of the plurality of data navigation providers (col. 4, lines 6-53, disclosing paths between more than one tables and their relationships); and

a data service provider that is associated with a data collection and configured to interact with a data navigation provider so as to-retrieve data from the data collection based on the user selection, at least some of the data retrieved from the data collection being provided to the user as a response to the user selection of a data navigation link (Refer to Fig. 7, where relationship comes from at least two entities in a model and the object within the model whereas the relationship includes a mapping or link between the two tables).

**Regarding claim 37,** Williamson et al. teach an object programming model having a unified user interface that, when invoked, enables a user to:

navigate between collections of information on an ad-hoc basis (Refer to Fig. 7, where relationship comes from at least two entities in a model and the object within the model whereas the relationship includes a mapping or link between the two tables); and

navigate between collections of information based on pre-defined navigation paths (col. 3, lines 60-67 and col. 4, lines 1-5, relationships mapping between two or more entities).

**Regarding claim 38,** Williamson et al. teach the method of claim 37, wherein the user is enabled to navigate between collections of information on an ad-hoc basis through application of at least a GetLinks( ) function (Refer to Fig. 7, where relationship comes from at least two entities in a model and the object within the model whereas the relationship includes a mapping or link between the two tables);

**Regarding claim 39**, Williamson et al teach the method of claim 38, wherein the user is enabled to navigate between collections of information on an ad-hoc basis through application of at least a TraverseLinks function (col. 11, lines 4-35, traversal path).

**Regarding claim 40**, Williamson et al. teach the method of claim 37, wherein the user is enabled to navigate between collections of information based on pre-defined navigation paths through application of at least a Navigate function (Refer to Fig. 7, where relationship comes from at least two entities in a model and the object within the model whereas the relationship includes a mapping or link between the two tables).

### ***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 5, 7, 9, 11-12, 24, 26-27, 30, 32, 33 rejected under 35 U.S.C. 103(a) as being unpatentable over Williamson et al. US Patent 6704744 in view of Carlson et al. US Patent 6173439.

**Regarding claim 5**, Williamson et al. teach the method of claim 2, however he does not teach, wherein providing the data context to a provider comprises providing the data context to a provider that is associated with a drill down type of navigation.

Carlson et al. teach providing the data context to a provider that is associated with a drill down type of navigation (col. 12, lines 6-52, drill down through the hierarchy tree structure).

It would be obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teach of Carlson et al. into Williamson et al. because it Carlson et al. disclose a way for an object oriented to provide a common interface to non-object oriented object data along with the capability of customizing the interface to accommodate different details of the framework which can be accessed throughout the different levels of the tree structure (col. 13, lines 56-67).

**Regarding claim 7**, Williamson et al. teach the method of claim 2, however he does not teach wherein providing the data context to a provider comprises providing the data context to a provider that is associated with a drill up type of navigation.

Carlson et al. teach providing the data context to a provider comprises providing the data context to a provider that is associated with a drill up type of navigation (col. 12, lines 6-52, drill down through the hierarchy tree structure).

It would be obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teach of Carlson et al. into Williamson et al. because it Carlson et al. disclose a way for an object oriented to provide a common interface to non-object oriented object data along with the capability of customizing the interface to



accommodate different details of the framework which can be accessed throughout the different levels of the tree structure (col. 13, lines 56-67).

**Regarding claim 9**, Williamson et al. teach the method of claim 2, however he does not teach wherein providing the data context to a provider comprises providing the data context to a provider that is associated with a drill across type of navigation.

Carlson et al. teach providing the data context to a provider that is associated with a drill across type of navigation (col. 12, lines 6-52, drill throughout a tree structure of the extensible items).

It would be obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teach of Carlson et al. into Williamson et al. because it Carlson et al. disclose a way for an object oriented to provide a common interface to non-object oriented object data along with the capability of customizing the interface to accommodate different details of the framework which can be accessed throughout the different levels of the tree structure (col. 13, lines 56-67).

**Regarding claim 11**, Williamson et al. .teach the method of claim 2, however he does not teach wherein providing the data context to a provider comprises providing the data context to a provider that is associated with a drill to details type of navigation.

Carlson et al. teach wherein providing the data context to a provider comprises providing the data context to a provider that is associated with a drill to details type of navigation (col. 12, lines 6-52, drill throughout a tree structure of the extensible items).

It would be obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teach of Carlson et al. into Williamson et al. because it Carlson

et al. disclose a way for an object oriented to provide a common interface to non-object oriented object data along with the capability of customizing the interface to accommodate different details of the framework which can be accessed throughout the different levels of the tree structure (col. 13, lines 56-67).

**Regarding claim 12**, Williamson et al. teach the method of claim 2; however he does not teach wherein providing the data context to a provider comprises providing the data context to a provider that is associated with navigation through collections of data that are hierarchically organized.

Carlson et al. teaches wherein providing the data context to a provider comprises providing the data context to a provider that is associated with navigation through collections of data that are hierarchically organized (col. 12, lines 6-52, drill throughout a tree structure of the extensible items).

It would be obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teach of Carlson et al. into Williamson et al. because it Carlson et al. disclose a way for an object oriented to provide a common interface to non-object oriented object data along with the capability of customizing the interface to accommodate different details of the framework which can be accessed throughout the different levels of the tree structure (col. 13, lines 56-67).

**Regarding claim 24**, Williamson et al. teach the system of claim 23, however he does not teach wherein the system further comprises a data service provider that is associated with a data collection (col. 4, lines 34-47, services requested by clients), the corresponding one of the data navigation service providers being configured to interact

with the data service provider so as to retrieve data from the data collection, wherein the data retrieved from the data collection corresponds to the selection command (col. 4, lines 34-56, retrieving data).

Carlson et al. teach wherein the system further comprises a data service provider that is associated with a data collection (col. 4, lines 34-47, services requested by clients), the corresponding one of the data navigation service providers being configured to interact with the data service provider so as to retrieve data from the data collection, wherein the data retrieved from the data collection corresponds to the selection command (col. 4, lines 34-56, retrieving data).

It would be obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teach of Carlson et al. into Williamson et al. because it Carlson et al. disclose a way for an object oriented to provide a common interface to non-object oriented object data along with the capability of customizing the interface to accommodate different details of the framework which can be accessed throughout the different levels of the tree structure (col. 13, lines 56-67).

**Regarding claim 26,** Williamson et al. teach the system of claim 23, however he does not teach wherein the system further comprises a data service provider that is associated with a data warehouse, the corresponding one of the data navigation service providers being configured to interact with the data service provider so as to retrieve data from the data warehouse, wherein the data retrieved from the data warehouse corresponds to the selection command.

Carlson et al teach wherein the system further comprises a data service provider that is associated with a data warehouse (col. 4, lines 34-47, services requested by clients), the corresponding one of the data navigation service providers being configured to interact with the data service provider so as to retrieve data from the data warehouse (col. 4, lines 34-47, services requested by clients), wherein the data retrieved from the data warehouse corresponds to the selection command (col. 4, lines 34-56, retrieving data).

It would be obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teach of Carlson et al. into Williamson et al. because it Carlson et al. disclose a way for an object oriented to provide a common interface to non-object oriented object data along with the capability of customizing the interface to accommodate different details of the framework which can be accessed throughout the different levels of the tree structure (col. 13, lines 56-67).

**Regarding claim 27.** Williamson et al. teach the system of claim 23, however he does not teach wherein the system further comprises a data service provider that is associated with a database, the corresponding one of the data navigation service providers being configured to interact with the data service provider so as to retrieve data from the database, wherein the data retrieved from the database corresponds to the selection command.

Carlson et al. teach wherein the system further comprises a data service provider that is associated with a database (col. 4, lines 34-47, services requested by clients), the corresponding one of the data navigation service providers being configured to

interact with the data service provider so as to retrieve data from the database(col. 4, lines 34-47, services requested by clients), wherein the data retrieved from the database corresponds to the selection command (col. 4, lines 34-56, retrieving data).

It would be obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teach of Carlson et al. into Williamson et al. because it Carlson et al. disclose a way for an object oriented to provide a common interface to non-object oriented object data along with the capability of customizing the interface to accommodate different details of the framework which can be accessed throughout the different levels of the tree structure (col. 13, lines 56-67).

**Regarding claim 30**, Williamson et al. teach the system of claim 17, however he does not teach wherein at least on of the plurality of data navigation providers is associated with a drill across type of navigation.

Carlson et al. teach providing the data context to a provider that is associated with a drill across type of navigation (col. 12, lines 6-52, drill throughout a tree structure of the extensible items).

It would be obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teach of Carlson et al. into Williamson et al. because it Carlson et al. disclose a way for an object oriented to provide a common interface to non-object oriented object data along with the capability of customizing the interface to accommodate different details of the framework which can be accessed throughout the different levels of the tree structure (col. 13, lines 56-67).

**Regarding claim 32.** Williamson et al. teach the system of claim 17, however he does not teach wherein at least one of the plurality of data navigation providers is associated with a drill to details type of navigation.

Carlson et al. teach wherein providing the data context to a provider comprises providing the data context to a provider that is associated with a drill to details type of navigation (col. 12, lines 6-52, drill throughout a tree structure of the extensible items).

It would be obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teach of Carlson et al. into Williamson et al. because it Carlson et al. disclose a way for an object oriented to provide a common interface to non-object oriented object data along with the capability of customizing the interface to accommodate different details of the framework which can be accessed throughout the different levels of the tree structure (col. 13, lines 56-67).

**Regarding claim 33.** Williamson et al. teach the system of claim 17, however he does not teach wherein at least one of the plurality of data navigation providers is associated with hierarchical navigation through collections of data that are hierarchically organized.

Carlson et al. teaches wherein providing the data context to a provider comprises providing the data context to a provider that is associated with navigation through collections of data that are hierarchically organized (col. 12, lines 6-52, drill throughout a tree structure of the extensible items).

It would be obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teach of Carlson et al. into Williamson et al. because it Carlson

et al. disclose a way for an object oriented to provide a common interface to non-object oriented object data along with the capability of customizing the interface to accommodate different details of the framework which can be accessed throughout the different levels of the tree structure (col. 13, lines 56-67).

### ***Conclusion***

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KELLYE BUCKINGHAM whose telephone number is 571-270-1756. The examiner can normally be reached on Monday- Friday, 7:30-5:00 EST alt Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christian Chace can be reached on 571-272-4190. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Examiner, Art Unit 2165

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